

## **REMARKS/ARGUMENTS**

### **Description of the Amendments**

Claim 1 has been amended to state that recovery cleanings are performed to increase the permeability of the membranes from time to time and that the cleaning events are performed between these recovery cleanings to reduce the rate of decline in permeability of the membranes between the recovery cleanings. This amendment is supported by the application as filed at page 3, line 27 to page 4, line 2; page 8, line 25 to page 9, line 3 and page 12, lines 11-20.

Claim 5 is amended to provide an alternate description of the "pulse" of chemical cleaner. These amendments are supported by the specification at page 14, line 2 to page 15, line 29.

Claim 6 is amended to add that the method of claim 5 is repeated between 1 and 7 times per week between more intensive cleanings performed at least 15 days apart. This amendment is supported by the application at page 3, line 27 to page 4, line 2; page 8, line 25 to page 9, line 3 and page 12, lines 11-20.

Claim 7 is amended to provide a better description of the T portion of the CT parameter. This amendment is supported by the application at page 11, lines 8-10.

Claims 11 to 15 are amended to correspond with amendments to claim 5. Claim 32 is amended to refer to the recovery cleanings being at least 15 days apart to correspond with the amendments made to claim 1.

New claims 34 to 38 depend on claim 1 and add further limitations to claim 1.

New claim 34 states that the membranes are hollow fiber porous membranes as supported by the application at page 6, line 1. New claim 35 states that the membranes are immersed in water and are not agitated during step (B)(b) as supported by the

application at page 10, lines 21-27. New claim 36 states that the step of flowing a chemical cleaner through the membranes further comprises the step of flowing water to the permeate sides of the membranes and introducing a chemical cleaner to the flowing water as supported by the application at page 10, lines 2-6. New claim 37 states that the cleaning events are performed at regular intervals and each have about the same CT as supported by the application at page 13, lines 5-21. New claim 38 states that some or all of the water in the tank before step (B)(b) of claim 1 is replaced with feed water after step (B)(b) of claim 1. This is supported by the application at page 17, lines 8-14.

The Applicants submit that these amendments do not add any new matter to the application.

#### **Further Remarks**

The documents provided with the supplemental Information Disclosure Statement supporting Applicants' Request for Continued Examination relate, among other things, to examples described at Figures 4 and 6 of Smith U.S. Patent No. 5,403,479. Regarding claim 1, the examples of Figures 4 and 6 of Smith '479 do not relate to cleaning events performed between recovery cleanings as claimed in claims 1 or 27. Further, the Applicants submit that Figure 4 shows a series of random cleaning events which does not provide any "weekly CT" as in claim 1, part (B)(c)(ii). Regarding the example of Figure 6, the Applicants submit that a concentration of citric acid is not provided. Since the concentration of citric acid required to make a cleaning solution having a pH of 2.5 would vary depending on the water used to make the cleaning solution, and the water used to make the cleaning solution is not specified, Figure 6 of Smith '479 does not disclose a weekly CT measured in terms of the units min•mg/L as claimed.

Regarding claim 5, Smith '479 refers to a form of "pulsing" at column 11, lines 35-46. However, the form of pulsing described in Smith '479 involves a pressure that varies from a minimum of about 100 kPa to a maximum of no higher than 300 kPa within a

period of less than 5 seconds. The Applicants submit that this does not provide the pulse steps and waiting periods of claim 5.

Regarding the new claims, the Applicants acknowledge that Smith '479 describes hollow fiber membranes but submit that claim 34 is allowable through its dependence on claim 1. Regarding new claim 35, the Applicants submit that the reference to not agitating the membranes during step (B)(b) of claim 1 provides an additional distinction from the methods in Smith '479. Smith '470 does not discuss stopping agitation of the membranes during a cleaning event and, in relation to membranes that are immersed in an open tank, Smith '479 describes that air is provided through a gas distribution means (column 17, line 22). Regarding claim 36, Smith '479 does not disclose a method of introducing a chemical cleaner to a flowing water. In contrast, Smith '479 extracts a chemical cleaner from a cleaning tank holding the chemical cleaner (column 17, lines 32-44). Regarding claim 37, the example of Figure 4 in Smith '479 does not disclose cleaning events performed at regular intervals, each having about the same C.T. Regarding claim 38, Smith '479 does not disclose replacing any water in the tank with feed water after a cleaning event. In contrast, Smith '479 teaches a process performed without draining the tank and the examples at Figures 4 and 6 do not describe replacing any water in the tank with feed water after any of the cleaning events.

The Applicants further submit that the claims are allowable over any other references citable against them and that the application is in condition for allowance.

Respectfully submitted,

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